

Amendments to the Specification

Please replace the following paragraph on page 4, lines 2-16 with the following replacement paragraph (amendments submitted on May 12, 2006 reflected below):

Figures 1A, B, C, and D through 1J show an alignment of AXMI-008 (SEQ ID NO:3) with cry1Aa (SEQ ID NO:8), cry1Ac (SEQ ID NO:9), cry1Ia (SEQ ID NO:10), cry2Aa (SEQ ID NO:11), cry3Aa1 (SEQ ID NO:12), cry3Bb (SEQ ID NO:13), cry4Aa (SEQ ID NO:14), cry4Ba (SEQ ID NO:15), cry6Aa (SEQ ID NO:16), cry7Aa (SEQ ID NO:17), cry8Aa (SEQ ID NO:18), cry10Aa (SEQ ID NO:19), cry16Aa (SEQ ID NO:20), cry19Ba (SEQ ID NO:21), cry24Aa (SEQ ID NO:22), cry25Aa (SEQ ID NO:23), cry39Aa1 (SEQ ID NO:24), and cry40Aa1 (SEQ ID NO:25). Toxins having C-terminal non-toxic domains were artificially truncated as shown.

Conserved group 1 is found from about amino acid residue 185 to about 206 of SEQ ID NO:3.

Conserved group 2 is found from about amino acid residue 276 to about 318 of SEQ ID NO:3.

Conserved group 3 is found from about amino acid residue 497 to about 547 of SEQ ID NO:3.

Conserved group 4 is found from about amino acid residue 576 to about 586 of SEQ ID NO:3.

Conserved group 5 is found from about amino acid residue 657 to about 667 of SEQ ID NO:3.

Please replace the following paragraph on page 14, lines 15-26 with the following replacement paragraph (amendments submitted on May 12, 2006 reflected below):

Amino acid substitutions may be made in nonconserved regions that retain function. In general, such substitutions would not be made for conserved amino acid residues, or for amino acid residues residing within a conserved motif, where such residues are essential for protein activity. Examples of residues that are conserved and that may be essential for protein activity include, for example, residues that are identical between all proteins contained in the alignment of Figures 1A, B, C, and D through 1J or 2A and B. Examples of residues that are conserved but that may allow conservative amino acid substitutions and still retain activity include, for example, residues that have only conservative substitutions between all proteins contained in the alignment of Figures 1A, B, C, and D through 1J or 2A and B. However, one of skill in the art would understand that functional variants may have minor conserved or nonconserved alterations in the conserved residues.